

Abstract of the Disclosure

A stack-type capacitor includes a lower electrode, a dielectric layer formed on the lower electrode, and an upper electrode formed on the dielectric layer, wherein the lower electrode includes a first metal layer having a cylindrical shape and a second metal layer filled in the first metal layer. In the capacitor, an amount of oxygen included in the lower electrode is decreased to suppress oxidation of a TiN layer. Thus, a stable stack-type capacitor may be formed, which increases greatly the performance of highly integrated DRAMs.